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PEANUT PRODUCTION PRACTICES AND COSTS
IN
ALABAMA AND GEORGIA

W. C. McArthur, R. D. Krenz, G. D. Garst
C. C. Micheel and D. L. Fawcett

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Introduction

In 1973, the Congress of the United States passed Public Law 93-86, the Agricultural and Consumer Protection Act of 1973. This law directed the Secretary of Agriculture to conduct cost of production studies on wheat, feed grains, cotton and dairy products. In response to this directive, the first surveys of cost of production were conducted in 1975.

In 1978, an additional survey of peanut producers was conducted in six states including Alabama, Georgia, North Carolina, Oklahoma, Texas and Virginia. This survey obtained data on practices used by farmers in regard to seeding, fertilizing, chemicals, machinery use, and other practices in peanut production.

This report presents data on production practices and the resulting cost of production for peanuts in Alabama and Georgia. The results for the other four states are available in separate reports.

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The Sample

All counties having 1,000 or more acres of peanuts in 1977 were included in the study areas (figures 1 and 2). In the sample counties, the names of producers to be interviewed were drawn at random from a list of all peanut producers. A list of 125 producers was compiled for Alabama and 150 for Georgia with the expectation of interviewing at least 75 percent of the producers on these lists. The actual number of interviews completed was 96 in Alabama and 128 in Georgia.

The data obtained in the survey are presented on a state basis for Alabama, and on a state and an area basis for Georgia. The cost of production estimates are presented on the same basis.

Land Use on Sample Farms

Peanuts, corn, and soybeans were the main crops reported on sample farms in both Alabama and Georgia (table 1). Peanuts ranked second behind corn on an acreage basis in Alabama; third on the same basis in Georgia behind corn and soybeans. According to the survey results, the average farm in Alabama derived 69 percent of its gross farm income from peanuts in 1977 compared with 50 percent for Georgia farms.

Peanuts averaged 136.8 acres per farm in Alabama; 77.8 acres in Georgia. Virtually all of the peanut acreages in both states were planted to Runner type peanuts.

Use of the peanut vine for hay after combining was a practice on several sample farms. Hay was baled from about 24 percent of the peanut acreage in Alabama compared with about 20 percent in Georgia. There were indications that hay was baled from a larger proportion of the peanut acreage in 1977 than in other recent years because of limited livestock feed arising from the summer drought that year.

Sample Counties in Alabama

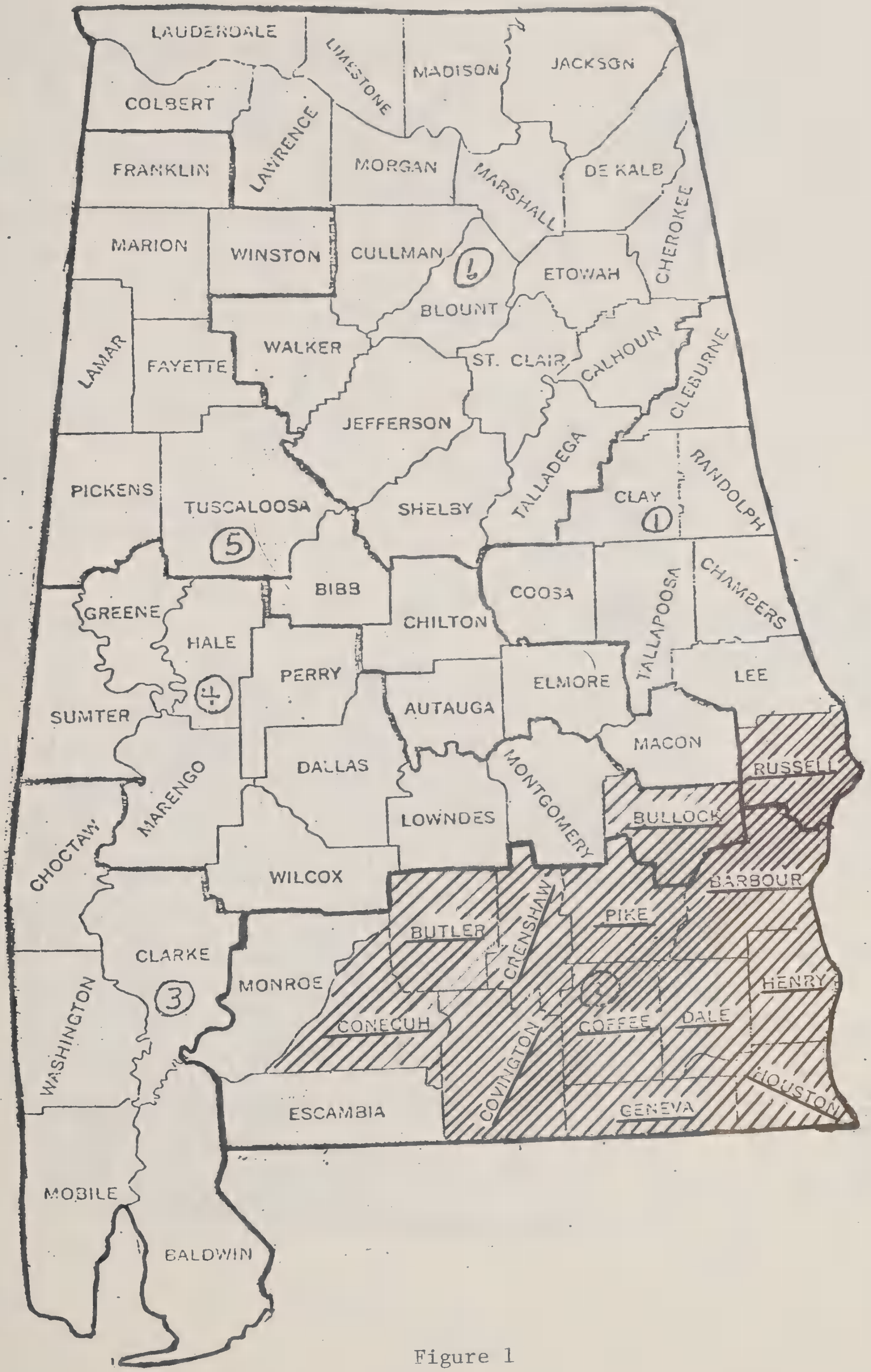

Figure 1

Sample Corr[illegible] [illegible] [illegible]

Sample Counties in Georgia

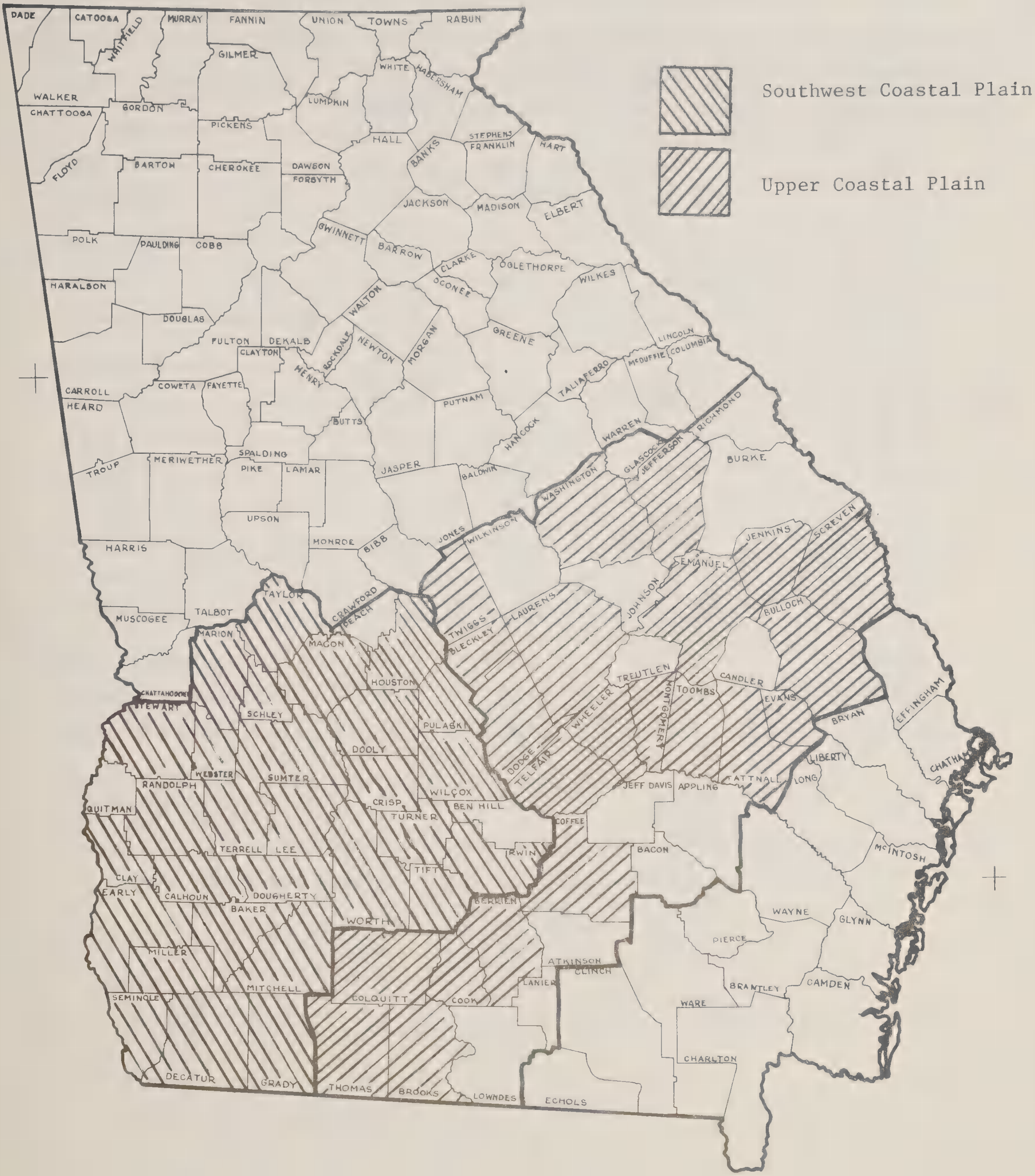

Figure 2

Table 1.--Land use on peanut farms in Alabama and Georgia, 1977

Item	Average acres per farm			
	Alabama	Georgia	Southwest Coastal Plain - Georgia	Upper Coastal Plain - Georgia
Total land	659.4	630.4	747.4	464.9
Cropland	401.9	420.5	494.6	315.7
Permanent pasture or hay	122.3	49.2	60.8	32.8
Other land	135.2	160.7	192.0	116.4
Percent of land owned	41.9	47.5	41.8	60.5
Cropland use:				
Peanuts	136.8	77.8	113.1	27.8
Corn	154.8	200.0	212.7	182.3
Soybeans	95.1	89.2	91.7	85.7
Cotton	1.0	34.2	53.6	6.6
Small grain 1/	61.1	20.5	24.8	14.3
Tobacco	0	4.1	2.7	6.2
Other field crops ...	14.7	24.0	34.7	8.7
Total planted	463.5	449.8	533.3	331.6
Double cropped	66.1	33.0	43.4	18.2
Idle or fallow	4.5	3.7	4.7	2.3
Percent of gross income from peanuts	68.9	49.5	62.5	31.2

1/ Rye, wheat and oats

The use of a cover crop on peanuts was also a common practice in 1977, particularly in Alabama. A cover crop was planted on about 40 percent of the peanut acreage in Alabama compared with about 24 percent in Georgia (table 2). Rye was the most common cover crop planted in both states.

The irrigation of peanuts was a common practice in Georgia, but less common in Alabama. For example, farmers in Georgia irrigated about 35 percent of their peanut acreage in 1977 compared with about 10 percent in Alabama (table 2). The irrigation of peanuts and other crops has been growing in Georgia in recent years, particularly in the Southwest Coastal Plain area.

Peanut Allotment

An acreage allotment program for peanuts has been operating for many years. Peanut allotments can either be owned or rented. Producers in Alabama owned about 23 percent of their alloted peanut acreage in 1977 compared with about 28 percent in Georgia (table 3). Share renting was fairly common in Alabama but not in Georgia. In the latter case, cash renting of both allotment and land was the predominant practice, particularly in the Southwest Coastal Plain area.

Cash rental rates appear to be much higher in Georgia than in Alabama. The average cash rental rate amounted to $196.02 per acre for land and allotment in Georgia compared with $97.20 per acre in Alabama (table 3). The rental rate for allotment without land was only slightly less in both states.

When peanuts are produced under a share rental arrangement, the landlord furnishes the land, the allotment, and some share of other specified inputs in exchange for a share of the crop. Most landlord-tenant shares

Table 2.--Peanut acreage per farm, hay harvest, and cover crop use, Alabama and Georgia, 1977

Item	Alabama	Georgia	Southwest Coastal Plain - Georgia	Upper Coastal Plain - Georgia
Total acres of peanuts:				
Per farm	136.8	77.8	113.1	27.8
Runners	133.2	76.6	111.2	27.6
Spanish	0	1.2	1.9	0.2
Virginia	3.6	0	0	0
Non irrigated	123.6	50.8	70.4	23.1
Irrigated	13.2	26.9	42.7	4.7
Percent irrigated	9.7	34.6	37.8	16.9
Acres of peanut hay	32.3	15.4	19.7	9.4
Percent of peanut acres harvested for hay	23.7	19.8	17.5	33.9
Acres of peanuts planted to cover crop	55.1	18.8	29.6	3.4
Percent of peanut acres planted to cover crop	40.3	24.2	26.2	12.2

Table 3.--Average size of peanut allotment and cash rental rates, Alabama and Georgia 1977

Item	Alabama	Georgia	Southwest Coastal Plain - Georgia	Upper Coastal Plain - Georgia
Acres of allotment:				
Owned	31.4	22.1	29.1	12.2
Percent owned	23.0	28.5	25.8	44.1
Rented in for cash				
Allotment only	20.2	9.2	13.2	3.4
Allotment and land (non-irrig.)	55.6	33.3	49.8	9.9
Allotment and land (irrigated)	5.2	10.5	16.9	1.6
Rented in on shares	27.1	2.6	4.1	0.6
Rented out	2.6	0	0	0
Total allotment available	136.9	77.8	113.1	27.8
Cash rent (dollars):				
Allotment only (per acre)	92.34	192.23	196.77	167.62
Allotment and land dryland (do.)	97.20	196.02	198.01	181.92
Allotment and land irrigated (do.)	112.78	167.74	163.87	226.28

of the peanut crop are split 50-50 in both states. The landlord contributes the largest share of fertilizer and seed costs in both states, and a smaller share of other specified expenses (tables 4 and 5).

Fertilizer, Lime, and Gypsum Use

Fertilizer use is an important practice in both Alabama and Georgia. Over 92 percent of the acreage was treated in 1977 with phosphate and potash (table 6). Less nitrogen was used in Alabama where 77 percent of the acreage was treated compared with about 95 percent of the acreage in Georgia. The use of lime and gypsum is a common practice in Georgia. In Alabama less than 20 percent of the acreage was treated with lime and about 32 percent with gypsum.

The application rates of nitrogen and phosphate varied only slightly between the two states while the amount of potash averaged 90 pounds per acre in Alabama and 105 pounds in Georgia. Lime application rates in 1977 averaged 0.72 ton per acre in Alabama, 0.8 ton in Georgia. Lime is usually applied every two or three years. The use of gypsum averaged 180 pounds per acre in Alabama and 780 pounds in Georgia.

Custom application was more important for fertilizer in both states than for lime or gypsum. Over 25 percent of the fertilizer was custom applied in 1977. Custom application rates ranged from $2.20 per acre in Georgia to $2.45 per acre in Alabama. The variation was much greater between areas in Georgia (table 6).

Chemical Use

Chemical costs represent a substantial proportion of the total cost of producing peanuts in the Southeast. In 1977, total chemical cost for

Table 4.--Share rental arrangements on non-irrigated peanut acreage, Alabama and Georgia, 1977

Item	Non-irrigated peanuts			
	Alabama	Georgia	Southwest Coastal Plain - Georgia	Upper Coastal Plain - Georgia
Landlord's share of:				
Peanut crop	47	50	50	50
Peanut hay	37	25	50	17
Expenses:				
Fertilizer	78	82	75	100
Gypsum	65	61	75	33
Lime	76	80	75	100
Seed	70	68	62	83
Herbicides	20	18	19	17
Insecticides and fungicides	47	27	31	17
Harvesting	16	4	6	0
Hauling	10	0	0	0
Drying	36	27	31	17
Peanut hay baling	37	0	0	0
Cover crop seed	42	75	75	0
Seeding of cover crop	35	25	25	0

Tbale 5.--Share rental arrangements on irrigated peanut acreage, Alabama and Georgia, 1977

Item	Irrigated peanuts			
	Alabama	Georgia	Southwest Coastal Plain - Georgia	Upper Coastal Plain - Georgia
Landlord's share of:				
Peanut crop	50	50	50	50
Peanut hay	100	0	0	0
Expenses:				
Fertilizer	50	75	100	50
Lime	50	75	100	50
Gypsum	50	50	0	50
Seed	67	75	100	50
Herbicides	50	25	0	50
Insecticides and fungicides	50	25	0	50
Harvesting	17	0	0	0
Hauling	0	0	0	0
Drying	50	25	0	50
Hay baling	100	0	0	0
Cover crop seed	50	0	0	0
Seeding of cover crop	33	0	0	0
Irrigation well	50	0	0	0
Pump	50	0	0	0
Distribution system	50	0	0	0
Fuel	50	0	0	0

Table 6.--Fertilizer use on peanut farms in Alabama and Georgia, 1977

Item	Alabama	Georgia	Southwest Coastal Plain - Georgia	Upper Coastal Plain - Georgia
Percent of acres treated				
Nitrogen (N)	77.0	94.8	94.9	93.8
Phosphate (P_2O_5)	93.4	95.0	94.9	95.7
Potash (K_2O)	92.1	95.0	94.9	95.7
Lime	19.4	81.3	82.9	71.7
Gypsum	32.2	77.4	76.0	85.5
Amount per acre:				
Nitrogen (pound)	19	21	21	25
Phosphate (pound)	66	59	60	52
Potash (pound)	90	105	108	88
Lime (ton)	.72	.80	.82	.68
Gypsum (ton)	.09	.39	.39	.37
Custom application				
Fertilizer (percent)	25.1	27.1	26.5	29.6
Cost per acre (dollar)	2.45	2.20	2.06	2.97
Lime (percent)	19.4	16.8	15.6	23.9
Cost per acre (dollar)	4.46	3.93	4.05	3.48
Gypsum (percent)	0.2	9.8	10.7	4.7
Cost per acre (dollar)	1.93	2.84	2.75	4.02

farms in the sample averaged $66.22 per acre in Alabama and $93.83 per acre in Georgia (table 7). The spread was even larger between production areas in Georgia. Fungicides comprised the largest proportion of total chemical cost followed by insecticides and herbicides.

Significant differences in chemical costs were found between production areas in Georgia. For example, total cost per acre for chemicals averaged $66.10 per acre in the Upper Coastal Plain and $98.94 per acre in the Southwest Coastal Plain.

Seed Use

The survey results indicated only a slight difference between the two states in peanut planting rates, and even less difference between production areas in Georgia. The average rate ranged from 111 pounds per acre in Alabama to 121 pounds in Georgia (table 8). Planting a cover crop on peanut land was a common practice in Alabama, but less important in Georgia. Seeding rates for cover crops averaged 113 pounds per acre in Alabama and 128 pounds in Georgia.

Custom Rates

Custom combining of peanuts occurred on about 5 percent of the acreage of sample farms in Alabama and 11 percent in Georgia. Average rates for custom combining in 1977 amounted to $31.22 per acre in Alabama and $32.79 per acre in Georgia (table 9).

Commercial drying of peanuts was a common practice in both states. Average rates for commercial or custom drying in 1977 amounted to $18.38 per ton in Alabama and $19.13 per ton in Georgia. Other custom operations of significance on peanuts included the application of fertilizer and other chemicals, and baling peanut hay.

Table 7.--Cost of chemicals used per acre on peanuts in Alabama and Georgia, 1977

Item	Alabama	Georgia	Southwest Coastal Plain - Georgia	Upper Coastal Plain - Georgia
All peanuts (dollars)				
Fungicides	24.58	42.11	43.93	32.21
Herbicides	20.39	26.35	20.81	17.83
Insecticides	13.89	22.42	24.26	12.49
Nematicides	5.16	6.40	7.30	1.53
Other	2.19	2.55	2.65	2.05
Total cost	66.22	93.83	98.94	66.10
Runners (dollars)				
Fungicides	25.18	42.75	44.73	32.10
Herbicides	20.51	20.67	21.19	17.89
Insecticides	14.27	22.75	24.70	12.33
Nematicides	5.02	6.50	7.43	1.54
Other	2.25	2.59	2.69	2.06
Total cost	67.23	95.27	100.75	65.91

Table 8.--Peanut planting seed use, Alabama and Georgia, 1977

Item	Alabama	Georgia	Southwest Coastal Plain - Georgia	Upper Coastal Plain - Georgia
Runners:				
Acres covered (percent)	97	98	98	99
Seed planted (pound)	110.6	121.2	121.5	119.7
Spanish:				
Acres covered (percent)	0	2	2	1
Seed planted (pound)	0	140.4	142.8	100.0
Virginia:				
Acres covered (percent)	3	0	0	0
Seed planted (pound)	100.0	0	0	0
Cover crop seed (pound)	113.0	128.3	129.6	109.9

Hand Labor

The amount of hand labor used for hoeing and weeding peanuts was relatively small. In 1977, hand labor use including operator, family, and hired labor amounted to 0.85 hour per acre in Alabama and 1.15 hours in Georgia (table 10). Assuming an average wage rate of $2.60 per hour, the cost of hand labor would amount to $2.21 per acre in Alabama and $2.99 per acre in Georgia. When adding the contract labor expense indicated in table 10 to the above, total hand labor averaged $2.40 per acre in Alabama and $3.15 in Georgia.

Trucks and Tractors

The data in table 11 show the average number of trucks per farm, average age, and miles driven per year. Trucks of less than a ton in size averaged over 13,000 miles in 1977, or about three times the use of the larger trucks (table 11). The smaller trucks are primarily farm pickup vehicles.

The average number of tractors per farm was virtually the same in both states (table 12). The main difference in tractor numbers occurred between production areas in Georgia. Average size of tractor varied to some extent between states but more significantly between production areas in Georgia. This related largely to the difference in size of farm units between the two areas.

Annual tractor use averaged 2,196 hours per farm in the Southwest Georgia Coastal Plain and 1,438 in the Upper Coastal Plain area (table 12). Comparable use amounted to 2,171 hours in Alabama and 1,882 hours in Georgia.

Tractor use increased as the size of tractor increased (table 13). Tractors in the large size categories were also newer and were powered predominately with diesel engines.

Table 9.--Custom rates for specified operations on peanut farms, Alabama and Georgia, 1977

Item	Alabama	Georgia
	dollar	dollar
Application of fertilizer (per acre) ...	2.45	2.20
Combining peanuts (per acre)	31.22	32.79
Drying peanuts (per ton)	18.38	19.13
Baling peanut hay (per bale)	0.50	0.32

Table 10.--Hand labor used on peanut farms, Alabama and Georgia 1977

Item	Alabama	Georgia	Southwest Coastal Plain - Georgia	Upper Coastal Plain - Georgia
Hand labor per farm:				
Operator and family (hours)	48.9	28.5	40.5	11.2
Hired labor (hours)	67.6	60.9	91.2	18.1
Contract labor (dollars) ..	26.66	12.12	4.95	22.26
Hand labor per acre of peanuts:				
Operator and family (hours)	0.36	0.37	0.36	0.40
Hired labor (hours)	.49	.78	.81	.65
Contract labor (dollars) ..	.19	.16	.04	.80

Table 11.--Trucks: Number per farm, average age, and miles driven per year, Alabama and Georgia, 1977

Item	Number per farm	Average age (years)	Miles driven annually: Per truck	Miles driven annually: Per acre all land	Miles driven annually: Per acre cropland
Alabama					
Less than 1 ton	1.69	4.8	13,214	33.8	55.5
1-2 tons	0.83	13.2	4,731	6.0	9.8
2-5 tons	.28	8.1	2,930	1.2	2.0
Georgia					
Less than 1 ton	1.43	4.5	14,625	33.2	49.7
1-2 tons	.41	12.5	4,091	2.7	4.0
2-5 tons	.56	9.9	4,107	3.7	5.5
Southwest Coastal Plain - Georgia					
Less than 1 ton	1.49	4.1	15,489	30.9	46.8
1-2 tons	.36	13.3	4,602	2.2	3.4
2-5 tons	.61	10.2	3,459	2.8	4.3
Upper Coastal Plain - Georgia					
Less than 1 ton	1.34	5.1	13,262	38.2	56.3
1-2 tons	.49	11.6	3,560	3.8	5.5
2-5 tons	.49	9.2	5,255	5.5	8.2

Table 12.--Average tractor size and use on peanut farms, Alabama and Georgia, 1977

Item	Alabama	Georgia	Southwest Coastal Plain - Georgia	Upper Coastal Plain - Georgia
Tractors per farm (No.)	2.9	2.8	3.0	2.4
Average size (PTO HP)	72.3	81.3	89.1	68.4
Annual use per farm (hour) ..	2,171	1,882	2,196	1,438
Annual use per tractor (hour)	739	669	735	560
Tractor hours for crop use	5.40	4.48	4.44	4.55
HP hours per crop acre	390	364	396	311
Tractor hours per total acre	3.29	2.99	2.94	3.09
HP hours per total acre ...	238	243	211	262

Table 13.--Size distribution of tractors, fuel type, number per farm, age, and hours of use, Alabama and Georgia, 1977

Tractor size (Range in HP)	Percent distribution by size	Fuel type (Percent of tractors)			Number per farm	Average age (years)	Average hrs. use per year	Tractor hrs. per acre of cropland
		Gaso.	Diesel	LP Gas				
Alabama:								
Less than 35	7.1	45	50	5	0.21	11.1	406	0.21
35-49	19.1	7	91	2	.56	7.6	588	0.82
50-64	17.7	2	98	0	.52	5.0	790	1.02
65-79	18.1	2	98	0	.53	3.1	772	1.02
80-94	13.5	3	97	0	.40	4.4	562	.85
95-109	12.8	0	100	0	.38	3.1	806	.75
110-124	6.0	0	100	0	.18	1.6	796	.35
125-154	5.3	0	100	0	.16	2.1	893	.35
155 & over	.4	0	100	0	.01	1.0	1,000	.03
Average	100.0	--	--	-	2.95	--	739	5.4
Georgia:								
Less than 35	9.7	60	37	3	0.27	13.1	254	0.16
35-49	13.3	21	79	0	.38	7.9	408	.36
50-64	15.8	2	98	0	.45	6.5	622	.66
65-79	9.7	0	100	0	.27	5.0	688	.45
80-94	16.7	2	98	0	.47	6.8	750	.84
95-109	12.8	0	100	0	.36	3.7	744	.64
110-124	3.9	0	100	0	.11	3.6	914	.24
125-154	16.1	0	100	0	.45	2.5	894	.96
155 & over	2.1	0	100	0	.05	2.0	1,282	.17
Average	100.0	--	--	-	2.81	--	669	4.5

Machinery Operations

The data in tables 14, 15, and 16 show the types of equipment, tractor and equipment size, times over the field, and the usual months of operation for all of the field operations in peanut production. These tables reflect the most common or predominate operations performed by producers in each production area.

Most producers used a basic set of field operations in peanut production. The usual operations included flatbreaking with moldboard plows, disking with a tandem disk, broadcast application of fertilizer with a truck, and the application of preplant herbicides. The herbicide application usually occurred during the disking or other tillage operations. While the broadcast method of applying fertilizer predominated, fertilizer was applied in a few cases with attachments to the planter or with other methods such as liquid fertilizer applicators. Other equipment used to a lesser extent in preparing the seedbed included chisel plows, spike tooth or spring tooth harrows, subsoilers, and roto tillers.

Producers in both states used mostly four-row planting and cultivating equipment and two-row digging equipment. The use of six-row tractor-mounted sprayers was a common practice. The survey results indicate some differences in equipment and tractor sizes between production areas. The largest tractors and associated equipment for several operations were found in the Southwest Georgia Coastal Plain.

While tractor-mounted sprayers were used predominately to apply chemicals, considerable amounts were applied by custom operators and a few producers used self-propelled sprayers. The results show about 7.5 applications of chemicals by Alabama producers compared with 6.3 applications in the Southwest Georgia Coastal Plain and 7.8 applications in the Upper

Table 14.--Equipment used on average acre of peanuts, Alabama, 1977

Equipment	Equipment size	Tractor size (HP)	Times over	Usual months
Moldboard plow, regular	3.5 bottom	72	.53	Feb.-Mar.
Moldboard plow, reversible	3.5 bottom	90	.53	Feb.-Mar.
Chisel plow	10 ft.	85	.24	Feb.-Mar.
Tandem disk	11 ft.	77	2.20	Feb.-Apr.
Tandem disk with attachment and equipment in tandem	11 ft.	82	1.24	Feb.-Apr.
Miscellaneous equipment - subsoiler, subsoil bedder, spike tooth harrow, spring-tooth harrow	--	--	.24	Feb.-Apr.
Roto tiller	4-row	90	.19	Mar.-May
Broadcast fertilizer (truck)	39 ft.	--	.35	Mar.-Apr.
Planter	4-row	65	.59	Apr.-May
Planter/chemical attachment	4-row	65	.45	Apr.-May
Broadcast fertilizer (trailer)	16 ft.	67	.18	May--June
Fertilizer attachment	14 ft.	61	.13	Apr.-June
Tractor mounted sprayer	17 ft.	60	7.49	Apr.-July
Rolling cultivator	4-row	69	.33	May-June
Row cultivator	4-row	58	1.55	May-June
Digger-shaker-inverter	2-row	77	1/.88	Sept.-Oct
Digger-shaker-inverter with vine cutter	2-row	77	1/.09	Sept.-Oct.
Reshaker	2-row	65	.09	Sept.-Oct.
Peanut combine		80	2/.94	Sept.-Oct.
Side delivery rake	6 ft.	56	.20	Sept.-Oct.
Hay baler	--	69	.20	Sept.-Oct
Grain drill	10 ft.	70	.26	Oct.-Nov.
Rotary mower	6 ft.	72	.11	Jan.-Mar.

1/ One percent of acreage not harvested; two percent custom digging.

2/ Five percent custom harvested.

Table 15.--Equipment used on average acre of peanuts, Southwest Coastal Plain, Georgia, 1977

Equipment	Equipment size	Tractor size (HP)	Times over	Usual months
Moldboard plow, regular	4-bottom	82	.39	Feb.-Apr.
Moldboard plow, reversible	4-bottom	129	.59	Feb.-Apr.
Chisel plow	9 ft.	101	.23	Jan.-Mar.
Tandem disk	14 ft.	105	2.85	Feb.-Apr.
Tandem disk with attachment or equipment in tandem	14 ft.	--	.95	Feb.-Apr.
Subsoil bedder	4-row	117	.30	Mar.-Apr.
Roto tiller with chemical attachment	4-row	104	.28	Apr.-May
Planter	4-row	82	.41	Apr.-May
Planter with chemical attachment	4-row	82	.47	Apr.-May
Tila-vator with planter	4-row	116	.14	Apr.-May
Rolling cultivator	4-row	83	.21	Apr.-June
Row cultivator	4-row	87	1.56	May-June
Broadcast fertilizer (truck)	30 ft.		.45	Apr.,May,Oct,Nov.
Broadcast fertilizer (trailer)	13 ft.	92	.49	Apr.,May,Jun.,Oct.
Fertilizer attachment (tractor)	13 ft.	76	.27	Apr.-June
Tractor mounted sprayer	12-row	74	3.97	Apr.-Aug.
Tractor mounted sprayer	6-row	59	2.33	Apr.-Aug.
Digger-shaker-inverter	2-row	96	1/ .96	Sept.-Oct.
Reshaker	2-row	76	.13	Sept.-Oct.
Peanut combine	--	103	2/ .88	Sept.-Oct.
Rotary mower	6 ft.	83	.18	Aug.-Oct.
Side delivery rake	6 ft.	78	.13	Sept.-Oct.
Hay baler	--	88	.15	Sept.-Oct.
Grain drill	11 ft.	84	.16	Oct

1/ One percent not harvested; three percent custom digging.

2/ One percent not harvested; 11 percent custom combine.

Table 16.--Equipment used on average acre of peanuts, Upper Coastal, Plain, Georgia, 1977

Equipment	Equipment size	Tractor size (HP)	Times over	Usual months
Moldboard plow, regular	4-bottom	67	.52	Feb.-Apr.
Moldboard plow, reversible	4-bottom	86	.40	Feb.-Apr.
Tandem disk	11 ft.	80	2.78	Jan.-Apr.
Tandem disk with attachment or equipment pulled in tandem	11 ft.	80	.33	Mar.-Apr.
Subsoil-bedder	4-row	111	.27	Mar.-Apr.
Roto-tiller with attachment	4-row	103	.18	Mar.-Apr.
Broadcast fertilizer (truck)	29 ft.	--	.52	Apr.-Nov.
Broadcast fertilizer (trailer)	14 ft.	76	.52	June-July
Fertilizer attachment to tractor	15 ft.	51	.24	Apr.-May
Planter	4-row	68	.66	Apr.-May
Planter with chemical attachment	4-row	68	.12	Apr.-May
Tilo-vator with planter, chemical attachment	4-row	96	.22	Apr.-May
Rolling cultivator	4-row	81	.31	Apr.-June
Row cultivator	4-row	54	1.26	Apr.-June
Tractor mounted sprayer	20 ft.	62	3.43	Apr.-July
Tractor mounted sprayer	6-row	51	4.42	Apr.-July
Digger-shaker-inverter	2-row	77	1/.66	Sept.-Oct.
Digger shaker	2-row	85	1/.29	Sept.-Oct.
Peanut combine	--	86	2/.83	Sept.-Oct.
Rotary mower	6 ft.	68	.18	Jan., Sept.
Vine cutter	9 ft.	72	.16	Aug.
Side delivery rake	8 ft.	72	.19	Sept.-Oct.
Hay baler	--	92	.22	Sept.-Oct.
Grain drill	11 ft.	65	.11	Oct.-Nov.

1/ Two percent not harvested; six percent custom digging, also includes small amount of reshaking.

2/ Two percent not harvested; 15 percent custom combined.

Coastal Plain area of Georgia. The number of applications varies from year to year depending on the level of plant disease and insect infestation.

The digger-shaker-inverter now predominates the peanut digging operation in all areas of the region. This machine lays the peanut vines with the nuts on top for better field drying. In a few cases producers still used the old style digger shaker. The use of a vine cutter is not a common practice in most cases. Very little reshaking of peanuts occurred in 1977.

Other equipment on sample farms included side delivery rakes and hay balers for baling peanut hay following the combining operation. Hay was baled in 1977 from about 24 percent of the peanut acreage in Alabama and about 20 percent in Georgia. In addition about 40 percent of the Alabama peanut acreage and 24 percent of the Georgia acreage was planted to a cover crop in 1977 requiring the use of a grain drill or broadcast seeder, and in a few cases, a rotary mower to dispose of residue from the cover crop.

Irrigation Systems

The importance of irrigation in peanut production has been growing in recent years, particularly in the Southwest Georgia Coastal Plain where about 38 percent of the peanut acreage was irrigated in 1977 compared with 10 percent in Alabama. In Georgia over 70 percent of the irrigation was from wells compared with about 7 percent in Alabama (table 17).

The amount of water applied and the timing of applications vary from year to year depending on the amount and distribution of rainfall. Rainfall was below normal in 1977, particularly in the early part of the growing season. Irrigation water use was higher in the Southwest Georgia Coastal

Plain in 1977 with the irrigated acreage receiving about 5.0 applications compared with 2.8 applications in 1976 (table 18).

Irrigation water was applied largely by cable-tow systems in both states (table 19). The next most common method of application was by center-pivot systems. A common practice was to pump water into holding ponds before distributing it in the sprinkler systems. The survey results indicated an average of two holding ponds per farm in both states (table 20).

Peanut Yields and Drying Costs

Despite below normal rainfall during the early part of the growing season in 1977, average per acre yields turned out to be one of the highest on record. Average yields on sample farms amounted to 2,791 pounds per acre in Alabama and 2,968 pounds per acre in Georgia. The survey results also show average yields from the irrigated land exceeding yields from the non-irrigated acreages in both states (table 21).

In nearly all cases peanuts must be dried before marketing. Commercial or custom drying accounted for 58 percent of the production on sample farms in Alabama and 62 percent on Georgia farms in 1977 (table 21). About four percent of the production in Georgia was field dried in 1977; less than one percent in Alabama. The rest of the production was dried with on-farm drying systems.

General Farm Overhead Costs

Table 22 shows a number of general farm overhead cost items that cannot be easily assigned to a specific crop or livestock enterprise. In this survey, producers were asked to estimate the total cost of each item to the farm, and in addition, indicate the percent of gross farm income derived from peanuts. These estimates were used to calculate general farm overhead costs per

Table 17.--Source of irrigation water, Alabama and Georgia, 1977

Item	Alabama	Georgia	Southwest Coastal Plain - Georgia	Upper Coastal Plain - Georgia
Wells (percent)	6.7	70.7	72.3	53.5
Other sources (percent)	93.3	29.3	27.7	46.5
Average pumping lift from wells (feet)	18.5	85.2	89.5	30.0

Table 18.--Amount of irrigation water per acre and timing of applications to peanuts, Alabama and Georgia, 1977

Item	Alabama	Georgia	Southwest Coastal Plain - Georgia	Upper Coastal Plain - Georgia
Number of applications in 1977:				
April	0.1	0.3	0.3	0.3
May	0.4	0.5	0.6	0.3
June	0.9	0.9	0.9	0.7
July	1.2	1.4	1.6	0.9
August	0.5	1.0	1.2	0.5
September	0	0.3	0.4	0
October	0	0	0	0
Total	3.1	4.4	5.0	2.7
Acre inches per application	1.3	1.3	1.3	1.3
Total acre inches applied in 1977	4.0	5.7	6.5	3.5
Total applications in 1976	3.4	2.8	2.8	3.0

Table 19.--Use of sprinkler irrigation systems on peanuts in Alabama and Georgia, 1977

Item	No. of systems	Total acres irrigated	Acres peanuts irrigated	Acres other crops irrigated
Alabama				
Side roll	--	--	--	--
Hand move	--	--	--	--
Cable tow	0.8	156.5	63.5	93.0
Permanent set	--	--	--	--
Center pivot	0.1	26.4	26.4	0
Other	--	1.1	1.1	--
Georgia				
Side roll	--	--	--	--
Hand move	--	3.4	2.3	1.1
Cable tow	1.1	135.0	66.2	68.8
Permanent set	--	0.5	0.3	0.2
Center pivot	0.4	90.1	24.8	65.3
Other	--	6.0	4.9	1.1

Table 20.--Irrigation facilities on peanut farms in Alabama and Georgia, 1977

Item	Per farm	Peanut acreage per item
Alabama		
Wells for irrigated peanuts (No.)	1.0	637
Holding ponds (No.)	2.1	67
Total pumps for wells and ponds (No.) ..	1.1	85
Georgia		
Wells for irrigated peanuts (No.)	2.0	123
Holding ponds (No.)	2.0	80
Total pumps for wells and ponds (No.) ..	1.5	64
Southwest Coastal Plain - Georgia		
Wells for irrigated peanuts (No.)	2.0	123
Holding ponds (No.)	2.4	94
Total pumps for wells and ponds (No.) ..	1.6	78
Upper Coastal Plain - Georgia		
Wells for irrigated peanuts (No.)	2.0	125
Holding ponds (No.)	1.3	28
Total pumps for wells and ponds (No.) ..	1.3	19

Table 21.--Peanut production and drying practices in Alabama and Georgia, 1977

Item	Alabama	Georgia	Southwest Coastal Plain - Georgia	Upper Coastal Plain - Georgia
Yield per acre for all peanuts (pounds)	2,791	2,968	3,110	2,676
Non-irrigated (pounds)	2,725	2,818	2,953	2,619
Irrigated (pounds)	3,411	3,250	3,368	2,956
Ave. distance to market (miles)	9.6	11.3	10.0	13.3
Percent of peanuts dried	99.5	96.5	96.1	98.7
Percent custom dried	58.5	61.6	59.7	73.4
Equipment used - farm drying				
Wagon (percent)	100	92	94	88
Batch (do.)	0	4	6	0
Continuous flow (do.)	0	4	0	12
Fuel used in dryer				
Gasoline (percent)	0	4	6	0
LP gas (do.)	96	96	94	100
Natural gas (do.)	4	0	0	0
Total cost of fuel (dollars)	2,048	1,366	1,745	560
Number of wagons per farm				
Owned	9	8	8	6
Borrowed	1	1	2	1
Size of wagons used (ton)	4.8	5.3	5.3	5.4
No. of dryer units per farm	2.1	1.8	2.1	1.1
Average number of wagons dried at a time	5.0	4.7	4.8	4.4

Table 22.--General farm cost per acre of peanuts, Alabama and Georgia, 1977

Item	Alabama	Georgia	Southwest Coastal Plain - Georgia	Upper Coastal Plain - Georgia
Farm insurance (residence excluded)	$4.08	$5.90	$5.80	$5.84
Electricity (farm share)...	2.16	4.30	4.24	4.48
Telephone (farm share)	.65	1.18	1.05	1.96
Bookkeeping (farm share)...	1.19	1.99	1.74	3.47
Legal fees (farm share) ...	.44	.66	.72	.54
Auto and truck licenses (farm share)	.88	.56	.46	1.13
Farm associations and organization dues	.14	.16	.13	.32
Subscriptions, farm related	.20	.18	.17	.22
Building repairs	1.86	2.99	2.33	6.78
Fence repairs	1.41	3.20	3.30	2.65
Total	13.01	21.12	19.94	27.39

acre of peanuts (table 22). Farm insurance, electricity, building and fence repairs were the largest expense items in most cases for all areas.

Summary of Production Costs

The estimates in tables 23, 24 and 25 summarize 1977 average production costs and returns per acre for peanuts in the sample areas. These estimates are based on data from the survey as well as data from other sources.[3/]

Total variable costs amounted to 10.0 cents per pound in Alabama and the Upper Coastal Plain of Georgia, and 11.0 cents per pound in the Southwest Coastal Plain area of Georgia (tables 22-24). Chemicals used for plant disease and insect control, and weed control constituted the largest component of variable costs. These costs averaged $66.31 per acre in the Alabama area in 1977, $98.95 per acre in the Southwest Georgia Coastal Plain, and $66.11 in the Upper Coastal Plain of Georgia. Planting seed was another major expense item in all study areas ranging from $57.18 to $61.60 per acre.

Peanut drying was the main harvest cost, ranging from $25.05 per acre in the Upper Coastal Plain to $27.91 per acre in the Southwest Georgia Coastal Plain. These costs are based on commercial or custom drying of peanuts. Although on-farm drying occurred on 25 to 40 percent of the acreage in 1977, the data were insufficient to calculate farm drying costs.

Machinery and equipment ownership costs (replacement, taxes, interest, and insurance) amounted to $41.83 per acre in Alabama, $48.24 per acre in the Southwest Georgia Coastal Plain, and $39.15 per acre in the Upper

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[3/] Other sources of data include 1977 Crop Production Summaries and Agricultural Prices published by the Crop Reporting Board, Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture.

Coastal Plain. Irrigation equipment accounted for the higher cost in the Southwest Coastal Plain.

Other cost items of significance include a land charge, general farm overhead, and a management charge. Cash rental rates were used for the land charge included in each budget. This item included both land and allotment rental. The survey results show considerably higher cash rental rates in Georgia than in Alabama. The average rate in 1977 ranged from $98.71 per acre in the Alabama area to $189.42 per acre in the Upper Coastal Plain of Georgia. The management charge, calculated as 10 percent of total costs less the land charge, averaged $32.00 per acre in the Alabama area and $38.77 in the Southwest Georgia Coastal Plain.

All costs for 1977, including both cash and noncash costs, averaged about 16.0 cents per pound in the Alabama area and 21.0 cents per pound in both Georgia areas. These results show fixed costs accounting for a smaller proportion of total cost in Alabama than in the Georgia areas. The lower fixed cost relates largely to the relatively low land rental rates in Alabama compared with the rates in Georgia.

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Table 23.--Peanuts, Alabama

1977

	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST PER ACRE	COST PER UNIT OF PRODUCTION
1. GROSS RECEIPTS FROM PRODUCTION:					
PEANUTS	LBS.	0.222	2745.000	609.39	
LEGUME HAY	BL.	1.200	11.900	14.28	
TOTAL RECEIPTS				623.67	
2. VARIABLE COSTS:					
PREHARVEST:					
SEED	LBS.	0.517	110.600	57.18	0.02
GRAIN SEED	LBS.	0.086	45.500	3.91	0.00
NITROGEN	LBS.	0.191	19.000	3.63	0.00
PHOSPHATE	LBS.	0.258	66.000	17.03	0.01
POTASH	LBS.	0.093	90.000	8.37	0.00
LIME	TN.	13.000	0.720	9.36	0.00
GYPSUM	TN.	31.500	0.090	2.83	0.00
FERTILIZER APPL.	ACRE	2.450	0.251	0.61	0.00
FUNGICIDE	ACRE	25.420	1.000	25.42	0.01
HERBICIDE	ACRE	21.090	1.000	21.09	0.01
INSECTICIDE	ACRE	14.370	1.000	14.37	0.01
NEMATODE CONTROL	ACRE	5.430	1.000	5.43	0.00
SEASONAL LABOR	HR.	2.710	0.420	1.14	0.00
TRACTOR FUEL & LUBE	ACRE			6.50	0.00
TRACTOR REPAIRS	ACRE			3.38	0.00
EQUIP FUEL & LUBE	ACRE			2.87	0.00
EQUIP REPAIRS	ACRE			5.48	0.00
IRRIG FUEL COST	ACRE			0.53	0.00
IRRIG LUBE COST	ACRE			0.06	0.00
IRRIG REPAIR COST	ACRE			0.51	0.00
MACHINERY LABOR	HRS	2.710	6.605	17.90	0.01
IRRIG LABOR	HRS	2.710	0.097	0.26	0.00
INTEREST ON OP. CAP.	DOLS	0.084	94.261	7.92	0.00
TOTAL PREHARVEST				215.79	0.08
HARVEST:					
SEASONAL LABOR	HR.	2.710	0.500	1.35	0.00
CUSTOM COMBINING	ACRE	31.220	0.050	1.56	0.00
DRYING	TN.	18.380	1.370	25.18	0.01
CUSTOM BALING	BL.	0.500	1.900	0.95	0.00
TRACTOR FUEL & LUBE	ACRE			4.04	0.00
TRACTOR REPAIRS	ACRE			2.10	0.00
EQUIP FUEL & LUBE	ACRE			1.69	0.00
EQUIP REPAIRS	ACRE			3.75	0.00
MACHINERY LABOR	HRS	2.710	3.111	8.43	0.00
INTEREST ON OP. CAP.	DOLS	0.084	3.199	0.27	0.00
TOTAL HARVEST				49.33	0.02
TOTAL VARIABLE COSTS				265.12	0.10
3. INCOME ABOVE VARIABLE COSTS				358.55	0.13
4. OWNERSHIP COSTS (REPLACEMENT, TAXES, INTEREST, INS.)					
TRACTORS				12.26	0.00
MACHINERY & EQUIP				28.25	0.01
IRRIGATION EQUIP				1.32	0.00
TOTAL OWNERSHIP COSTS				41.83	0.02
5. OTHER COSTS					
LAND CHARGE (CASH RENT)				98.71	0.04
GEN FARM OVERHEAD				13.01	0.00
MANAGEMENT CHARGE (10.0% OF TC-LAND)				32.00	0.01
TOTAL OTHER COSTS				143.72	0.05
6. TOTAL OF ABOVE COSTS				450.67	0.16
7. RETURN TO RISK				173.00	0.06

FOOTNOTES: CASH RENTAL CHARGE INCLUDES RENTAL OF ALLOTMENT. 9.7% IRRIGATED, WATER SOURCE - PONDS, 1.3 INCHES PER APPLICATION, 3.1 APPLICATIONS, CABLE TOW SYSTEM, AVERAGE LIFT - 18.5 FEET, DIESEL ENGINE.

11/01/78
MACARTHUR
12/06/78

ENTERPRISE CODE: 953000010
AREA CODE: _6/_1/_2/_0
FILE NO. 753
ACRES REP. BY BUDGET: 210.0 (000) ACRES
ANNUAL CAPITAL MONTH: 10
PERCENT CUSTOM HARVESTED: 5
TECHNOLOGY YEAR 77
DATE PRINTED: 01/18/79

MACHINERY COMPLEMENT NO. 27
NAME SET: 1
PARAMETER SET: 1
HARVESTED ACREAGE AS PERCENT PLANTED: 99.50
EDITION NO. 4

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Table 24.--Peanuts, Southwest Coastal Plain, Georgia 1977

	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST PER ACRE	COST PER UNIT OF PRODUCTION
1. GROSS RECEIPTS FROM PRODUCTION:					
PEANUTS	LBS.	0.209	2881.000	602.13	
LEGUME HAY	BL.	1.380	9.800	13.52	
TOTAL RECEIPTS				615.65	
2. VARIABLE COSTS:					
PREHARVEST:					
SEED	LBS.	0.507	121.500	61.60	0.02
GRAIN SEED	LBS.	0.085	34.000	2.89	0.00
NITROGEN	LBS.	0.197	21.000	4.14	0.00
PHOSPHATE	LBS.	0.174	60.000	10.44	0.00
POTASH	LBS.	0.081	108.000	8.75	0.00
LIME	TN.	15.600	0.820	12.79	0.00
GYPSUM	TN.	31.500	0.390	12.28	0.00
FERTILIZER APPL.	ACRE	2.970	0.265	0.79	0.00
FUNGICIDE	ACRE	45.140	1.000	45.14	0.02
HERBICIDE	ACRE	21.380	1.000	21.38	0.01
INSECTICIDE	ACRE	24.930	1.000	24.93	0.01
NEMATODE CONTROL	ACRE	7.500	1.000	7.50	0.00
SEASONAL LABOR	HR.	2.600	0.590	1.53	0.00
TRACTOR FUEL & LUBE	ACRE			6.52	0.00
TRACTOR REPAIRS	ACRE			3.51	0.00
EQUIP FUEL & LUBE	ACRE			2.03	0.00
EQUIP REPAIRS	ACRE			4.24	0.00
IRRIG FUEL COST	ACRE			4.91	0.00
IRRIG LUBE COST	ACRE			0.56	0.00
IRRIG REPAIR COST	ACRE			3.54	0.00
MACHINERY LABOR	HRS	2.600	5.231	13.60	0.00
IRRIG LABOR	HRS	2.600	0.615	1.60	0.00
INTEREST ON OP. CAP.	DOLS	0.077	112.150	8.64	0.00
TOTAL PREHARVEST				263.32	0.09
HARVEST:					
SEASONAL LABOR	HR.	2.600	0.600	1.56	0.00
CUSTOM COMBINING	ACRE	34.630	0.110	3.81	0.00
DRYING	TN.	19.250	1.450	27.91	0.01
CUSTOM BALING	BL.	0.320	1.400	0.45	0.00
TRACTOR FUEL & LUBE	ACRE			4.27	0.00
TRACTOR REPAIRS	ACRE			2.29	0.00
EQUIP FUEL & LUBE	ACRE			2.32	0.00
EQUIP REPAIRS	ACRE			4.44	0.00
MACHINERY LABOR	HRS	2.600	3.405	8.85	0.00
INTEREST ON OP. CAP.	DOLS	0.077	4.242	0.33	0.00
TOTAL HARVEST				56.24	0.02
TOTAL VARIABLE COSTS				319.56	0.11
3. INCOME ABOVE VARIABLE COSTS				296.09	0.10
4. OWNERSHIP COSTS (REPLACEMENT, TAXES, INTEREST, INS.)					
TRACTORS				12.10	0.00
MACHINERY & EQUIP				27.50	0.01
IRRIGATION EQUIP				8.64	0.00
TOTAL OWNERSHIP COSTS				48.24	0.02
5. OTHER COSTS					
LAND CHARGE (CASH RENT)				185.11	0.06
GEN FARM OVERHEAD				19.94	0.01
MANAGEMENT CHARGE (10.0% OF TC-LAND)				38.77	0.01
TOTAL OTHER COSTS				243.82	0.08
6. TOTAL OF ABOVE COSTS				611.63	0.21
7. RETURN TO RISK				4.02	0.00

FOOTNOTES: CASH RENTAL LAND CHARGE INCLUDES RENTAL OF ALLOTMENT, 37.8% IRRIGATED, WATER SOURCE - WELLS, 1.3 INCHES PER APPLICATION, 5 APPLICATIONS, CABLE TOW, AVERAGE LIFT - 90 FEET, DIESEL ENGINE.

11/01/78
MACARTHUR
11/14/78

ENTERPRISE CODE: 953000010
AREA CODE: _6/13/_4/_0
FILE NO. 818
ACRES REP. BY BUDGET: 419.7 (000) ACRES
ANNUAL CAPITAL MONTH: 10
PERCENT CUSTOM HARVESTED: 11
TECHNOLOGY YEAR 77
DATE PRINTED: 01/18/79

MACHINERY COMPLEMENT NO. 27
NAME SET: 1
PARAMETER SET: 13
HARVESTED ACREAGE AS PERCENT PLANTED: 99.20
EDITION NO. 4

Table 25.--Peanuts, Upper Coastal Plain, Georgia 1977

	UNIT	PRICE OR COST/UNIT	QUANTITY	VALUE OR COST PER ACRE	COST PER UNIT OF PRODUCTION
1. GROSS RECEIPTS FROM PRODUCTION:					
PEANUTS	LBS.	0.209	2630.000	549.67	
LEGUME HAY	BL.	1.380	19.000	26.22	
TOTAL RECEIPTS				575.89	
2. VARIABLE COSTS:					
PREHARVEST:					
SEED	LBS.	0.507	119.700	60.69	0.02
GRAIN SEED	LBS.	0.085	13.400	1.14	0.00
NITROGEN	LBS.	0.197	25.050	4.93	0.00
PHOSPHATE	LBS.	0.174	52.000	9.05	0.00
POTASH	LBS.	0.081	88.000	7.13	0.00
LIME	TN.	15.600	0.680	10.61	0.00
GYPSUM	TN.	31.500	0.370	11.65	0.00
FERTILIZER APPL.	ACRE	2.970	0.296	0.88	0.00
FUNGICIDE	ACRE	33.240	1.000	33.24	0.01
HERBICIDE	ACRE	18.400	1.000	18.40	0.01
INSECTICIDE	ACRE	12.890	1.000	12.89	0.00
NEMATODE CONTROL	ACRE	1.580	1.000	1.58	0.00
SEASONAL LABOR	HR.	2.600	0.680	1.77	0.00
TRACTOR FUEL & LUBE	ACRE			5.84	0.00
TRACTOR REPAIRS	ACRE			3.10	0.00
EQUIP FUEL & LUBE	ACRE			2.52	0.00
EQUIP REPAIRS	ACRE			4.59	0.00
IRRIG FUEL COST	ACRE			0.80	0.00
IRRIG LUBE COST	ACRE			0.09	0.00
IRRIG REPAIR COST	ACRE			0.87	0.00
MACHINERY LABOR	HRS	2.600	6.114	15.90	0.01
IRRIG LABOR	HRS	2.600	0.150	0.39	0.00
INTEREST ON OP. CAP.	DOLS	0.077	94.882	7.31	0.00
TOTAL PREHARVEST				215.36	0.08
HARVEST:					
SEASONAL LABOR	HR.	2.600	0.670	1.74	0.00
CUSTOM COMBINING	ACRE	26.280	0.160	4.20	0.00
DRYING	TN.	18.980	1.320	25.05	0.01
CUSTOM BALING	BL.	0.320	6.700	2.14	0.00
TRACTOR FUEL & LUBE	ACRE			3.76	0.00
TRACTOR REPAIRS	ACRE			2.04	0.00
EQUIP FUEL & LUBE	ACRE			1.93	0.00
EQUIP REPAIRS	ACRE			3.90	0.00
MACHINERY LABOR	HRS	2.600	3.234	8.41	0.00
INTEREST ON OP. CAP.	DOLS	0.077	3.464	0.27	0.00
TOTAL HARVEST				53.44	0.02
TOTAL VARIABLE COSTS				268.80	0.10
3. INCOME ABOVE VARIABLE COSTS				307.09	0.12
4. OWNERSHIP COSTS (REPLACEMENT, TAXES, INTEREST, INS.)					
TRACTORS				10.81	0.00
MACHINERY & EQUIP				26.15	0.01
IRRIGATION EQUIP				2.20	0.00
TOTAL OWNERSHIP COSTS				39.15	0.01
5. OTHER COSTS					
LAND CHARGE (CASH RENT)				189.42	0.07
GEN FARM OVERHEAD				27.39	0.01
MANAGEMENT CHARGE (10.0% OF TC-LAND)				33.53	0.01
TOTAL OTHER COSTS				250.34	0.10
6. TOTAL OF ABOVE COSTS				558.30	0.21
7. RETURN TO RISK				17.59	0.01

FOOTNOTES: CASH RENTED LAND CHARGE INCLUDES RENTAL OF ALLOTMENT.
16.9% IRRIGATED, WATER SOURCE - WELLS, 1.3 INCHES PER APPLICATION, CABLE TOW, AVERAGE LIFT - 30 FEET, DIESEL ENGINE.

11/01/78
MACARTHUR
12/06/78

ENTERPRISE CODE: 953000010
AREA CODE: _6/13/_5/_0
FILE NO. 824
ACRES REP. BY BUDGET: 109.1 (000) ACRES
ANNUAL CAPITAL MONTH: 10
PERCENT CUSTOM HARVESTED: 16
TECHNOLOGY YEAR 77
DATE PRINTED: 01/18/79

MACHINERY COMPLEMENT NO. 27
NAME SET: 1
PARAMETER SET: 13
HARVESTED ACREAGE AS PERCENT PLANTED: 99.20
EDITION NO. 4